

Claims

1 1. An automatic wire threader, for threading a wire
2 electrode through upper and lower wire guides, comprising:
3 upper and lower energized electrodes for supplying
4 heating current to the wire electrode, provided above the upper
5 wire guide;

6 a vertically moveable guide pipe through which the wire
7 electrode can pass, provided between the upper and lower
8 energized electrodes;

9 a heat retention unit, having a through hole through
10 which the guide pipe can pass, provided between the upper and
11 lower energized electrodes;

12 a coolant supply unit for supplying coolant for cooling
13 the wire electrode in the guide pipe; and

14 a blocking fluid supply unit for supplying blocking
15 fluid for preventing coolant flowing into the through hole of
16 the heat retention unit.

1 2. The automatic wire threader of claim 1 further
2 comprising a nozzle for generating a flow of blocking fluid
3 traversing the wire electrode in a gap formed between the guide
4 pipe and the heat retention unit.

1 3. An automatic wire threader, for threading a wire
2 electrode through upper and lower wire guides, comprising:
3 upper and lower energized electrodes for supplying
4 heating current to the wire electrode, provided above the upper
5 wire guide;

6 a vertically moveable guide pipe through which the wire
7 electrode can pass, provided between the upper and lower

8 energized electrodes;

9 a heat retention unit, having a through hole through
10 which the guide pipe can pass, provided between the upper and
11 lower energized electrodes;

12 a coolant supply unit for supplying coolant for cooling
13 the wire electrode in the guide pipe; and

14 a blocking plate for preventing coolant flowing into
15 the through hole of the heat retention unit.